

Borough of Crosby

Annual Report

of the

Medical Officer of Health

For the Year, 1937

LIVERPOOL :
Meek, Thomas & Co. Ltd.
Printing Contractors

1938



Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

<https://archive.org/details/b29130463>

BOROUGH OF CROSBY

HEALTH COMMITTEE AT THE END OF 1937.

Chairman:

ALDERMAN H. Y. BRAMHAM.

Deputy Chairman:

ALDERMAN DR. L. HILL.

Aldermen BARNES, HAYES, JAMIESON, JONES, LOW,
MASON-GUTTRIDGE and H. WILLIAMS.

Councillors COLLINS, COWLEY, KUP, McKILLOP, MORRIS,
Mrs. NORMAN-THOMAS, Miss ROLLO, SMITHSON, SUTCH,
TITHERLEY, WENSLEY, A. S. WILLIAMS, and W. R.
WILLIAMS.

STAFF AT THE END OF 1937.

Medical Officer of Health:

V. J. GLOVER, M.D. (L'pool), M.B., Ch.B. (Viet.), D.P.H.

*A. J. W. CUNNINGHAM, M.A., M.D. (Cantab.), D.P.H.
Deputy Medical Officer of Health.

*SIDNEY B. HERD, M.D., F.C.O.G.,
Gynæcologist.

*J CUSSONS HEPTON, M.R.C.S.
Aurist. Light Therapeutician.

*J. FRANK COWELL, L.D.S. (Lond.),

*ALFRED H. CLEAVER, L.D.S.
Dental Surgeons.

Chief Sanitary Inspector:

†JOSEPH ALMOND, A.R.San.I., M.S.I.A.

District Sanitary Inspectors:

††A. E. JONES, M.S.I.A., C.R.San.I.

††N. BENSON, A.R.San.I., M.S.I.A.

†C. JOHNSON, A.R.San.I., M.S.I.A.

Health Visitors:

Miss M. R. SUTTON, C.R.S.I., C.M.B.

Miss L. WILDE, H.V.Cert., C.M.B.

Mrs. E. J. ROBERTS, S.R.N.

Clerical Assistants:

F. C. WILKINSON. Miss M. CULLIMORE.

Town Clerk:

FRANK D. FOULKES.

* Part time. † Certified Meat Inspector.

‡ Certified Smoke Inspector.

HEALTH DEPARTMENT,
TOWN HALL,
WATERLOO,
May, 1938.

**The Mayor, Aldermen and Councillors
of the Borough of Crosby.**

LADIES AND GENTLEMEN,

I have pleasure in submitting my Annual Report on the Health and Sanitary conditions of your district for the year 1937.

On November 9th the Urban Districts of Great Crosby and Waterloo amalgamated. The area thus formed became the Borough of Crosby, with a population of 55,580. The Urban District of Crosby, unlike that of Waterloo, was not an elementary education authority or a maternity and child welfare authority, so that the amalgamation involved a transfer of services in connection with the school medical services and maternity and child welfare clinics from the County to the Borough.

DEATH RATE.—The death rate was 12.7 per 1,000, being a slight increase over that of the previous year, taking the combined area as a whole.

BIRTH RATE.—The birth rate was 15.0 per 1,000, being an increase over that of the previous year.

INFANTILE MORTALITY.—The infantile mortality rate was 56 per 1,000 live births, as compared with a rate of 66 per 1,000 for the preceding year. This rate is less than that for the country as a whole.

MATERNAL MORTALITY.—The maternal mortality rate was 4.54 per 1,000 total (live and still) births.

SANITATION.—The sanitation of the District is excellent.

MATERNITY AND CHILD WELFARE.—The Clinics held at the maternity and child welfare centres continue to be well attended.

HEALTH EDUCATION.—Talks on hygiene were given to teachers in the schools, and hygiene pamphlets were distributed at the school clinics and at the school medical inspections. Towards the end of the year the Ministry of Health inaugurated a publicity campaign. At their request posters were exhibited on the public boardings in the Borough, and leaflets were distributed through the schools, libraries and clinics, urging the public to make full use of the public health services provided. The publicity material was supplied free of charge.

Towards the end of 1937, Dr. W. J. Birchall, who for six years had been engaged by the department as part time Assistant Medical Officer, left the district to take up the post of Medical Officer of Health for the combined districts of Tarvin and West Cheshire. I must record my appreciation of the excellent services rendered by Dr. Birchall.

Finally, it is a duty as well as a pleasure to express my appreciation of the keen interest shown by members of the Health Committee in particular and by the Council members in general in the work of the department.

Yours obediently,

V. J. GLOVER,

Medical Officer of Health.

SECTION 1

Natural and Social Conditions of the Area and Vital Statistics.

Area, 6,852 acres (Land and inland water 4,771 acres,
Foreshore 2,081 acres).

Population (Census 1931)—50,562.

Population (Estimated 1937)—55,580.

Number of inhabited houses (end of 1937) according to Rate Books—15,861.

Rateable value, £480,794.

Sum represented by a penny rate, £1,890.

Live births—

				Total.	M.	F.	
Legitimate	...	...		816	427	389	
Illegitimate	...	...		23	16	7	
				<hr/>	<hr/>	<hr/>	
Total	...	...	...	839	443	396	
Birth-rate per 1,000 of the estimated resident population	...	...	...	...	...	...	15.0

				Total.	M.	F.	
Stillbirths	...	...	...	41	23	18	
Rate per 1,000 total (live and still) births	...	...	...	...	...	...	46

				Total.	M.	F.	
Deaths	...	...	...	711	359	352	
Death-rate per 1,000 of the estimated resident population	...	...	...	...	...	...	*12.7

Deaths from puerperal causes—

						Deaths.	
Puerperal sepsis	...	...	...	...	...	1	
Other puerperal causes	...	...	...	...	...	3	
						<hr/>	
Total	...	...	...	...	...	4	
Death-rate per 1,000 total (live and still) births	...	...	...	...	...	...	4.54

Death-rate of Infants under one year of age :—

All infants per 1,000 live births	...	...	...	56
Legitimate infants per 1,000 legitimate live births	...	...	...	53
Illegitimate infants per 1,000 illegitimate live births	...	...	...	130

Deaths from Cancer (all ages) ...	...	98
„ „ Measles (all ages) ...	...	2
„ „ Whooping Cough (all ages) ...	...	4
„ „ Diarrhoea (under 2 years of age)		3

Population—55,580.

	Per 1,000 of estimated population				M'tnal Mort rate		Rate of deaths under one year per 1000 live births
	Live birth-rate.	Crude death-rate.	Death-rate from Tuberculosis of Respiratory system	Death-rate from Cancer	Per 1000 live births	Per 1000 total (live & still) births	
Mean of 5 years,							
1932-1936	14.1	11.5	0.68	1.60	4.15	3.97	65
Year 1936	13.5	12.5	0.77	1.76	3.97	3.83	55
„ 1937	15.0	*12.7	0.62	1.76	4.76	4.54	56

Increase or decrease in 1937 on—
5 years' average,

1932-1936	+0.9	+1.2	—0.06	+0.16	+0.61	+0.57	—7
-----------	------	------	-------	-------	-------	-------	----

Previous

year	+1.5	+0.2	—0.15	nil	+0.79	+0.71	+1
------	------	------	-------	-----	-------	-------	----

*1937 adjusted death-rate (comparability factor, 1.03)=13.0 per 1,000.

PHYSICAL FEATURES.—The Borough of Crosby is situated on the estuary of the Mersey to the north of Bootle, and having on its eastern boundary agricultural land for its entire length.

On the northern and north-eastern sides it is bounded by the Urban District of Formby, and to the south-east by the Rimrose Brook. This brook for a portion of its length in Seaforth is culverted where it passes under Seaforth Road and certain property in Sandy Road. A scheme of drainage for the Rimrose Brook Watershed has been agreed to by the authorities concerned, which comprise the Lancashire County Council and the Councils of the Districts through which the brook flows. The scheme provides for culverting and diverting the line of the existing brook and its removal as an open brook from this district entirely.

OPEN SPACES.—The district is well provided with open spaces, which are situated to serve all parts. Bowersdale Park at the south end contains 2 $\frac{3}{4}$ acres, Seaforth Recreation Ground and Crosby Road Recreation Ground near the centre contain 14 $\frac{3}{4}$ acres, whilst Victoria Park is 19 $\frac{1}{2}$ acres in extent. Brook Vale Recreation Ground, which was converted from a completed Refuse Disposal Tip, contains 9 $\frac{1}{2}$ acres.

The Marine Gardens on the sea front between Great George's Road and South Road is in area about $3\frac{1}{2}$ acres, and Adelaide Garden, between Blücher Street and Wellington Street, is 2 acres in extent; and Crescent Green contains $4\frac{1}{2}$ acres.

During the year the work of laying out another garden, Beech Lawn, facing the river, has been commenced. A new boundary wall has been erected on the shore, reclaiming a large area which will form a lower garden. The existing lawn area will be formed into the upper garden. A special feature of the finished garden will be a rockery stream and pools falling into a lake. The total area of the new garden is about 3 acres. When this work is completed the gardens on the river front will extend from Great George's Road to Harbord Road.

Another improvement is almost completed at Victoria Park, Waterloo, at the corner bounded by Somerville Road and Park View. This area, which was formerly a sandy waste, is being laid out in walks and flower beds. A playing field has been laid out adjoining Potters Barn in Crosby Road South, Seaforth, the area of which is 6 acres. The turf is not yet ready for playing on, but it will be ready for the summer of 1939.

BIRTH RATE.—There were 839 births registered in the district during the year, 443 were males and 396 females, which gives a birth rate of 15.0 per 1,000 of the population estimated by the Registrar-General, which was 55,580. Last year the births numbered 754, giving a birth rate of 13.5. The birth rate of England and Wales is 14.9 per 1,000 total population.

Vital Statistics.

DEATH RATE.—The total number of deaths of residents of the district during the year numbered 711, showing a death rate of 12.7 per 1,000 per annum. In 1936 there were 698 deaths, giving a death rate of 12.5 per 1,000 per annum. The death rate for England and Wales is 12.4 per 1,000 per annum. Of the deaths which occurred in the district, it is noteworthy that 262 were transferables.

Heart Disease, Respiratory Diseases, Cancer and Malignant Disease, and Congenital Debility, were the predominant causes of death. It might be noticed in particular that the deaths in the area from peptic ulcers are eight times greater in males than in females. This disease is usually far more prevalent in males than in females, perhaps due to irregular meal times.

INFANTILE MORTALITY RATE.—There were 47 deaths of children under one year of age, a death rate of 56 per 1,000

CAUSES OF DEATH IN THE BOROUGH OF CROSBY, 1937.

Causes of Death (Civilians only).							Males	Females
ALL CAUSES							359	352
1.	Typhoid and Paratyphoid Fevers	...	...	...	...	...	—	—
2.	Measles	...	...	...	...	...	2	—
3.	Scarlet Fever	...	...	...	...	...	—	—
4.	Whooping Cough	...	...	...	...	...	3	1
5.	Diphtheria	...	...	...	...	...	2	3
6.	Influenza	...	...	...	...	...	9	11
7.	Encephalitis Lethargica	...	...	...	...	...	1	—
8.	Cerebro-Spinal Fever	...	...	...	...	...	—	2
9.	Tuberculosis of respiratory system	...	...	...	...	...	25	10
10.	Other Tuberculous diseases	...	...	...	...	...	6	2
11.	Syphilis	...	...	...	...	...	—	—
12.	General Paralysis of the insane, tabes dorsalis	...	...	...	...	...	1	—
13.	Cancer, malignant disease	...	...	...	...	...	48	50
14.	Diabetes	...	...	...	...	...	3	1
15.	Cerebral Hæmorrhage, etc.	...	...	...	...	...	18	24
16.	Heart Disease	...	...	...	...	...	74	85
17.	Aneurysm	...	...	...	...	...	1	1
18.	Other circulatory diseases	...	...	...	...	...	18	22
19.	Bronchitis	...	...	...	...	...	13	10
20.	Pneumonia (all forms)	...	...	...	...	...	21	13
21.	Other respiratory diseases	...	...	...	...	...	1	4
22.	Peptic Ulcer	...	...	...	...	...	8	1
23.	Diarrhœa, etc. (under two years)	...	...	...	...	...	1	2
24.	Appendicitis	...	...	...	...	...	2	1
25.	Cirrhosis of Liver	...	...	...	...	...	1	—
26.	Other diseases of Liver, etc.	...	...	...	...	...	1	2
27.	Other Digestive diseases	...	...	...	...	...	3	5
28.	Acute and Chronic Nephritis	...	...	...	...	...	12	15
29.	Puerperal Sepsis	...	...	...	...	...	—	1
30.	Other Puerperal causes	...	...	...	...	...	—	3
31.	Congenital Debility, Premature Birth, Malformations, etc.	...	...	...	...	...	17	11
32.	Senility	...	...	...	...	...	13	17
33.	Suicide	...	...	...	...	...	4	6
34.	Other Violence	...	...	...	...	...	16	10
35.	Other defined diseases	...	...	...	...	...	27	37
36.	Causes ill-defined or unknown	...	...	...	...	...	8	2
Special causes (included in No. 35 above)								
	Smallpox	...	...	...	...	...	—	—
	Poliomyelitis	...	...	...	...	...	—	—
	Polioencephalitis	...	...	...	...	...	—	—
Deaths of Infants under one year of age								
	Total	...	...	...	...	...	26	21
	Legitimate	...	...	...	...	...	24	20
	Illegitimate	...	...	...	...	...	2	1
Live Births								
	Total	...	...	...	...	...	443	396
	Legitimate	...	...	...	...	...	427	383
	Illegitimate	...	...	...	...	...	16	7
Still Births								
	Total	...	...	...	...	...	23	18
	Legitimate	...	...	...	...	...	23	13
	Illegitimate	...	...	...	...	...	—	5

BIRTH-RATES, DEATH-RATES, ANALYSIS OF MORTALITY, MATERNAL DEATH-RATES, AND CASE-RATES FOR CERTAIN INFECTIOUS DISEASES IN THE YEAR 1937. } } England and Wales, London, 125 Great Towns & 148 Smaller Towns.

(Provisional Figures based on Weekly and Quarterly Returns)

	England and Wales.	125 County Boroughs and Great Towns, including London.	148 Smaller Towns (Resident Populations 25,000 to 50,000 at 1931 Census).	London. Adminis- trative County.
Rates per 1,000 Population.				
Births—	14.9	14.9	15.3	13.3
Live	0.60	0.67	0.64	0.54
Still				
Deaths—	12.4	12.5	11.9	12.3
All Causes				
Typhoid and Paratyphoid Fevers	0.00	0.01	0.00	0.00
Smallpox... ..	...	..	..	...
Measles	0.02	0.03	0.02	0.01
Scarlet Fever	0.01	0.01	0.01	0.01
Whooping Cough	0.04	0.04	0.03	0.06
Diphtheria	0.07	0.08	0.05	0.05
Influenza	0.45	0.39	0.42	0.38
Violence	0.54	0.45	0.42	0.51
Notifications—				
Smallpox... ..	0.00	.	0.00	...
Scarlet Fever	2.33	2.56	2.42	2.09
Diphtheria	1.49	1.81	1.38	1.93
Enteric Fever	0.05	0.06	0.04	0.05
Erysipelas	0.37	0.43	0.34	0.44
Pneumonia	1.36	1.58	1.20	1.18
Rates per 1,000 Live Births.				
Deaths under 1 year of age	58	62	55	60
Deaths from Diarrhoea and Enteritis under 2 years of age	5.8	7.9	3.2	12.0
Maternal Mortality—				
Puerperal Sepsis	0.97	} Not available.		
Others	2.26			
Total	3.23			
Rates per 1,000 Total Births (i.e., Live and Still).				
Maternal Mortality—				
Puerperal Sepsis	0.94	} Not available.		
Others	2.17			
Total	3.11			
Notifications—				
Puerperal Fever	13.93	17.59	11.52	} 4.15 14.34
Puerperal Pyrexia				

SECTION 2

General Provision of Health Services in the Area.**Hospitals.**

SMALLPOX AND OTHER INFECTIOUS DISEASES.—There is no Infectious Hospital in the district, but an arrangement is in force whereby cases are treated in the Liverpool Infectious Diseases Hospitals. Patients are received until the Hospitals are full, the available accommodation being sufficient for the needs of the district.

TUBERCULOSIS.—Administered by the County Council.

MATERNITY CASES.—There is no Maternity Hospital in the district, but the Liverpool Hospitals are available.

CHILDREN'S AND OTHERS.—Waterloo and District General Hospital, also Bootle and Liverpool Hospitals.

One Institution in the district receives unmarried mothers, illegitimate infants and homeless children.

AMBULANCE FACILITIES.—(a) For Infectious Cases—Liverpool Corporation Motor Ambulance. (b) For non-infectious cases and accident cases—Motor Ambulances, Bootle General Hospital, Lancashire Public Assistance Committee, and Merseyside Hospitals (Penny in the £ subscribers) Ambulance.

Clinics and Treatment Centres.

Clinic.	Situation.	By whom provided.
Maternity & Child Welfare,	Prince Street, Waterloo.	Borough
Do.	do. York Avenue, Crosby.	„
School Clinic,	Prince Street, Waterloo.	„
Do.	York Avenue, Crosby.	„
Ophthalmic Clinic,	Prince Street, Waterloo.	„
Dental Clinics,	Prince Street, Waterloo, and York Avenue.	„
Orthopædic Clinic,	Lancashire County Council's, Litherland.	
Tonsils and Adenoids Clinic,	Waterloo General Hospital.	Borough
Artificial Light Clinic,	Prince Street, Waterloo.	„
Aural Clinic,	Prince Street, Waterloo.	„
Tuberculosis Dispensary,	7 Claremont Road, Seaforth.	
		County Council
Veneral Disease,	Bootle and Liverpool Hospitals.	„ „

PROFESSIONAL NURSING IN THE HOME.—On 1st February, 1934, the Seaforth Nursing Association, which was formed 40 years ago, was merged into the Waterloo District Nursing Association (formed in 1929), so that now there is one Association—the Waterloo and Seaforth Nursing Association—employing two nurses. There is also a Great Crosby Nursing Association which serves the northern portion of the Borough.

MIDWIVES.—The number of midwives practising in the district is 12, all holding the certificate of the Central Midwives Board.

BACTERIOLOGICAL WORK.—The following specimens were examined by Professor Wright, City Laboratories, Liverpool:

Throat swabs	...	...	...	...	...	88
Blood	...	...	...	...	...	6
Faeces	...	...	...	...	...	12
Lake water	...	...	...	...	...	1
Urine	...	...	...	...	...	8
Sputum	...	...	...	...	...	1

Of the throat swabs, 14 were found to be positive.

LEGISLATION IN FORCE.—The following Acts and Bye-laws are in force in the district, and the Corporation strongly support any action taken under the provisions:—

	Operative from
Waterloo-with-Seaforth Local Board Act, 1892	... 19/9/93
Public Health Act, 1936	... 1/10/37
Museums and Gymnasiums Act, 1891	...
Public Libraries Act, 1892	...
Local Government and Other Officers (Superannuation) Act, 1922	1/11/25
Waterloo-with-Seaforth Urban (Offensive Trades) Confirmation Order, 1929	7/10/29
Shops Act, 1912/1934, and 5 Orders made thereunder.	
Shops (Sunday Trading) Restriction Act, 1936.	
Housing Act, 1936	... 1/1/37

BYE-LAWS.

New Streets and Buildings	... 6/10/27
Nuisances	... 16/4/98

Houses Let in Lodgings	...	..	.	...	...	1/10/29
Pleasure Grounds	...	...	..	..	...
Offensive Trades	...	...	...	...	...	10/12/31
Tents, Vans and Sheds	...	...	...	...	..	4/5/31
Fouling of footpaths by dogs	...	...	...	...	...
Keeping of Swine	...	...	...	...	...	9/11/37
Hackney Carriages	...	...	...	...	...	9/11/37

Sanitary Circumstances of the District.

WATER SUPPLY.—The water is supplied by the Liverpool Corporation, and its chief source of supply is Lake Vyrnwy in Wales. It is moderately soft in character and is excellent for all domestic purposes. All the houses are supplied from the public mains.

SCAVENGING.—This work is carried out by the Corporation workmen under the supervision of a Cleansing Superintendent directed by the Borough Engineer.

The main roads are cleansed daily, other roads at less frequent intervals—at least once weekly. The district is therefore kept in a clean and tidy state.

SECTION 3

Maternity and Child Welfare.

PUBLIC HEALTH ACT, 1936.—Under this Act 530 births were notified during 1937. Of the births notified, 587 were visited. These included new births transferred by hospitals or nursing homes out of the district.

1,855 re-visits were made to infants under one year, and 4,201 visits to infants from one to five years of age, and whenever considered necessary the patients were advised to obtain medical aid. 1,579 special visits were made to the children. In connection with ante-natal work there were 253 visits and 558 re-visits. Enquiries were made regarding 20 still-births.

INFANT CONSULTATION CLINIC.—This Clinic was inaugurated in February, 1917 and there have been this year 334 infant consultations and 359 re-consultations.

I referred 46 children to the Waterloo and District General Hospital for treatment for Phimosi during the year.

INFANT WELFARE CENTRES.—The average attendance for the past twelve months has been 85 at the Clinic for Waterloo residents and 91 at the Clinic for Seaforth residents. These clinics are held in the Waterloo Centre on different afternoons. The attendance of mothers has increased, and they are of the type one desires, many of them being young mothers. Appropriate lectures are delivered upon ante-natal, post-natal, infant care and complaints. Instruction is given as to the value of fresh air, sunlight, proper dietary, regular hours of feeding and sleep, cleanliness, appropriate clothing and the preparation, selection and cooking of cheap nutritious foods. Babies are stripped and weighed weekly. The weights are charted and kept for reference in the Clinic, and a card record of the weight is given to the mother.

The ladies of the Waterloo-with-Seaforth Health Society have done most excellent work as regards Maternity and Child Welfare. During the year the Society has given assistance to 271 families, including expectant and nursing mothers. 4,303 gallons of milk have been supplied. Each case has been personally and regularly visited and the circumstances entered into by ladies of the Committee. Cow and Gate, Trufood, Ambrosia, Cod Liver Oil and Malt, Virol and Maltoline are supplied at cost price. Milk has been given out of the Society's own funds to children who did not come under the Milk Scheme. Umbilical belts were supplied to babies. The

maternity bags and blankets have been lent out as required. Fire-guards are provided at a low cost, as also sterile outfits for confinement.

The Centres are greatly appreciated and are accomplishing valuable work.

Ante-Natal and Post-Natal Clinic.

The total number of patients who attended this Clinic during 1937 amounted to 184, and this number was made up as follows:

Ante-Natal—144 new cases; 713 re-attendances.

Post-Natal—40 new cases; 54 re-attendances.

Midwives sent 93 cases for advice or treatment and 10 cases were referred by doctors.

Where necessary patients were referred to Hospital—Waterloo General Hospital, the Liverpool Maternity Hospital or the Royal Infirmary—for special advice, treatment or investigation (including radiological examination) some of the reasons for sending these patients being:—glycosuria, abnormal presentation, contracted pelvis, chest complications, albuminuria and suspected malformation of the child. 72 patients were transferred to Walton Infirmary for confinement.

Routine advice and treatment were given in the Clinic and re-attendances of patients were more regular and satisfactory.

In addition to the routine ante-natal advice and examination the following were dealt with:—

Artificial Light treatment.

Dental treatment.

Provision of extra nourishment.

Blood tests.

Insertion of pessaries.

The Dick test for immunity against Scarlet Fever and similar infections was carried out as a routine, and all patients with a positive reaction were given a course of immunisation.

Artificial Sunlight Treatment.

Disease.						No. of Cases.
Underweight	...	...	...	...	...	16
Rickets	...	...	...	...	...	43
Post Pneumonia	...	...	...	...	...	2
Malnutrition	...	...	...	...	...	3
Anaemia	...	...	...	...	...	4
Congenital Maldevelopment	...	...	...	...	...	1
Pyelitis	...	...	...	...	...	1
Debility	...	...	...	...	...	26
Alopecia	...	...	...	...	...	1
Frequent colds	...	...	...	...	...	1
						—
						98
						—

Total attendances	1,111
Still attending	32
Improved	27
Cured	23
Ceased to attend	5
Left the district	7
Sent to hospital	2
Referred to private medical practitioner	2

Before treatment each child is thoroughly examined by the Medical Officer of Health, who recommends suitable cases. These children are medically examined weekly and weight and temperature taken. In many cases the children are suffering from insufficient nourishment, and are referred to the Ladies' Health Society, through whose generous help much needed supplies of milk, milk foods, and medical necessities, Halibut Oil, Malt, Vitamin capsules, etc., are supplied.

Aural Clinic.

Disease.	No. of Cases.
Otorrhœa	30
Tympanic Sepsis	44
Abscess	15
Foreign body	1
Enlarged cervical glands	1
Rhinitis	15
Threatened mastoid	2
Impacted cerum	4
Otitis	11
Septic tonsils	3
Nasal catarrh	15
Nasal obstruction	3
Deflected septum	2
Dermatitis	1
Eczema	3
Lupus	1
Vocal cords affected after operation ...	1
Enlarged tonsils	3
Total	155

The total of 155 cases was made up as follows:—School children, 114; children under 5 years of age, 41. Of the 114 school children, 95 were cured, 34 of the 41 children under 5 were cured. Two cases were referred to hospital and one case left the district. A total of 965 visits were paid.

Treatment used was the Kromayer quartz lamp, ionisation infra red lamp, diastolisation, etc. The children attend regularly and the results have been satisfactory.

ORTHOPÆDIC CLINIC.—24 cases were referred from the Child Welfare Centres and Infant Clinics for orthopædic consultation. In one of these cases no orthopædic defect was found. The remainder consisted of:—

Disease or Defect.					Number.
Abduction of hip	...	...	...	...	1
Spastic paraplgia	...	...	...	...	3
Left club foot	...	...	...	...	1
Flat feet	...	...	...	...	5
Swelling right foot	...	...	...	...	1
Fracture left thigh	...	...	...	...	1
Knock knee	...	...	...	...	3
Talipis	...	...	...	...	1
Genu varum	...	...	...	...	5
Spina bifida	...	...	...	...	2
Bow legs	...	...	...	...	1
Rickets	...	...	...	...	2

Multiple defects were found in three cases.

Public Health Act, 1936.

Child Life Protection.

Provision has been made for carrying out the duties under Sections 206 to 220 of this Act, and the Health Visitors have been appointed Child Life Protection Visitors. They made 191 visits during the year.

The year started with 10 foster-parents on the register, which number had increased to 12 at the end; also there were 12 children on the register at the beginning of the year, this number increased to 14 at the end of the year.

Ophthalmia Neonatorum.

CASES			Unimpaired Vision	Deaths
Number Notified	Treated			
	At Home	In Hospital		
4	2	2	—	—

SECTION 4

IMMUNISATION.

The 1931 Census recorded the number of children in the Urban District of Waterloo-with-Seaforth under 14 years of age as 7,300, although since that date the Registrar General's yearly estimate has decreased the population. The figure of 7,300 has, however, been taken as a "constant" for my estimations.

During the period 1932 inclusive to September, 1937, amongst the unimmunised children under 15 years of age there occurred:—

(a) of Diphtheria, 318 cases amongst 4,265 such children.

(b) of Scarlet Fever, 388 cases amongst 3,280 such children.

The attack rates amongst children under 15 years of age in the Urban District of Waterloo-with-Seaforth during the five years 1932 to 1937 inclusive are for the five year period:—

		Non-immunised.	Immunised.
Diphtheria	... ..	7.46%	0.36%
Scarlet Fever	... ..	11.82%	0.60%

The numbers of children under 15 years of age immunised at the clinic during the same period were: (a) against diphtheria, 3,035; (b) against scarlet fever, 3,000. During the five years there occurred amongst the immunised only 11 cases of diphtheria and 18 of scarlet fever, all of which were of short duration and mild. The dosage of both diphtheria and scarlet fever prophylactics employed at first was found to be too low, and was gradually increased. For scarlet fever prophylaxis, it was found the dosage must be 115,000 skin test doses to be effectual. Reactors should always be given an additional dose (which remark applies to both diphtheria and scarlet fever).

Saving the Rates by Immunisation.

If no immunisation had been carried out, there would have occurred in the district during the quinquennium an additional 226.4 cases of diphtheria, and 354.6 cases of scarlet fever. During the period of the cases of scarlet fever notified, 72% were removed to hospital, and of the cases of diphtheria 97.5%.

The average duration of a case of scarlet fever in hospital is five weeks, which costs, at three guineas weekly, £15 15s. 0d., and the cost of a diphtheria case is six weeks at the same weekly

charge—£18 18s. 0d. An additional charge is to be added, consisting of :—

	s.	d.
Ambulance Fee	15	0
Smoke testing house drains ...	5	0
Disinfecting room	6	0
Disinfection of infected bedding, removal, and return of same ...	6	0
	<hr/>	
	£1	12 0

making for scarlet fever a cost for each removed to hospital of £17 7s. 0d., and for diphtheria, £20 10s. 0d.

Out of 226.4 cases of diphtheria 216.6 would have gone into hospital, and of the 354.6 cases of scarlet fever 255.3 would have gone into hospital. The cost of hospital maintenance, plus the aforesaid incidental charges for each case, for 216.6 cases of diphtheria would have amounted to £4,440 6s. 0d., and for 255.3 cases of scarlet fever to £4,429 9s. 1d., totalling for both diseases combined £8,869 15s. 1d. The total cost of immunisation against both diseases since its institution by the Waterloo Urban District Council's Health Committee in 1931 up to 1938 has been £2,576 9s. 6d. The saving to ratepayers owing to immunisation equals £8,869 15s. 1d.—£2,576 9s. 6d. = £6,293 5s. 7d. amongst the age-group 0 to 15 years during the quinquennium.

It is noteworthy that despite the higher attack rate of scarlet fever during the period, its cost in hospital maintenance and the common additional charges for a larger number of cases would about equal that for diphtheria.

Reaction after Immunisation.

I have never met with a case of anaphylaxis. It is exceptional to find with scarlet fever any severe reaction (which also applies to diphtheria). Reactors, I regard as the extremely susceptible who should have an extra dose beyond those usually given. Syringes should be boiled, and also each needle after use and also before use. The water used for boiling must be amphoteric or slightly alkaline to avoid reaction and spirit must not be used to immerse either needle or syringe in, although the needles and syringe should repose on the lint wrung out of spirit. The smallest quantity of spirit if injected can cause violent reaction. For diphtheria, Burroughs Wellcome and Co.'s Prophylactic T.A.P. is used, and for scarlet fever their Prophylactic A followed by D.

Dr. Hodgson, Medical Superintendent of the Liverpool Fever Hospitals, and Lecturer in the Liverpool University, has frequently remarked to me that he has noted the comparatively

small number of cases of diphtheria and scarlet fever sent into hospital by my Authority, who send them to the Liverpool Fever Hospital, although there has been much prevalence of both diseases. I am indebted to him for checking any cases amongst the immunised reported to me as diphtheria or scarlet fever, and reporting to me his findings, and to Doctors O'Brien and Parish of the Wellcome Physiological Research Laboratories for their advice since my undertaking immunisation. It was owing to Dr. O'Brien's conviction that scarlet fever immunisation was useless unless over 100,000 skin test doses were given, that by gradually pushing up the dosage I arrived at a satisfactory result. I cordially endorse his conviction.

Dosage Against Scarlet Fever.

My dosage for scarlet fever consists of four weekly injections of:—

(i)	Scarlet Fever Prophylactic	A	1	c.c.
(ii)	„ „ „	D	0.5	c.c.
(iii)	„ „ „	„	0.75	c.c.
(iv)	„ „ „	„	1.0	c.c.

Reactors after a fortnight are given an additional 1.0 c.c.

Dosage Against Diphtheria.

My dosage for diphtheria consists of three weekly injections of:—

(i)	Diphtheria Prophylactic	T.A.F.	1.5	c.c.
(ii)	„ „ „	„	1.5	c.c.
(iii)	„ „ „	„	2.0	c.c.

Both injections are given at the same time, and through the same needle which is not withdrawn till the procedure is completed. Two biscuits are given to each child at the time of inoculation.

Tables I. and II. show markedly the great fall yearly of the number of persons contracting scarlet fever or diphtheria nursed at home:—

TABLE I.

URBAN DISTRICT OF WATERLOO-WITH-SEAFORTH.

Years.	Cases of Scarlet Fever notified of children under 15 years.				No. who were nursed at home.
1932	75	...	22
1933	105	...	38
1934	106	...	33
1935	30	...	5
1936	62	...	15
1937	47	...	6

TABLE II.

Years.	Cases of Diphtheria notified of children under 15 years.					No. who were nursed at home.
1932	59	...	...	3
1933	40	...	...	3
1934	41	...	...	1
1935	70	...	...	Nil
1936	93	...	...	1
1937	60	...	...	1

TABLE III.

Years.	Deaths from Diphtheria and Scarlet Fever. (Children under 15 years).				
	Diphtheria.			Scarlet Fever.	
1932	3	...	1
1933	6	...	—
1934	7	...	—
1935	7	...	—
1936	4	...	1
1937	Not available				

The low attack rate amongst the immunised both as regards diphtheria and scarlet fever I attribute to the fact that the methods of collection of the organisms of both diphtheria and scarlet fever in the preparation of the prophylactics employed ensure that as far as is humanly possible they contain toxins of all the types of organisms causative of diphtheria and scarlet fever respectively.

I would emphasise to all Medical Officers of Health the importance of ascertaining how and from whom the infective agent is collected by those who manufacture prophylactics and in the case of sera their globulin content, which should be as low as possible, though the globulin content of prophylactics does not appear to be of importance, before employing any of their products.

It is comparatively easy, I would think, to collect the varieties of the corynebacteria of diphtheria but extremely difficult to collect the types of the hæmolytic streptococci causative of scarlet fever.

Scarlet fever immunisation has been looked upon askance by many owing to: (a) reaction, attributed wrongly as anaphylaxis in the majority of cases, but more often due to faulty technique, or to high susceptibility to contract the disease, or (b) ineffectiveness in the production of immunity. Nothing short of a total dosage of 115,000 skin test doses should be employed. The reactor I invariably regard as one who is extremely susceptible to the disease.

The site of injection chosen by me is into the insertion of the deltoid muscle, the skin over which has been cleansed by spirit.

If afterwards any swelling or redness occurs mild inunction of castor oil, and the application of lint wrung out of the oil is very soothing, or the application of a lead and opium compress. If malaise or slight temperature occurs, which is very rare, a purge, and milk diet with beef-tea should be given. The condition, however, invariably disappears, usually in 24 to 48 hours, and need cause no alarm.

The statistics have been taken from the records of my Departments of the Waterloo-with-Seaforth Urban District Council, and I have to thank P. Johnson, Esq., the Accountant, for the financial details.

The cost of hospital maintenance of the few cases which occurred amongst the immunised has been deducted.

The dosage of Diphtheria Prophylactic T.A.F. employed by me was arrived at after careful experimentation. Schick testing was carried out in numerous cases at a period of three months after immunisation. When a dosage had been attained which gave a Schick negative result at that interval of time of under one per cent. the dosage was further increased.

Large numbers of infants of age 10 months have been given by me an initial dosage of 2 c.c. of T.A.F., and each subsequent dose of that amount. I have never seen the slightest reaction in an infant of that age. The liability of T.A.F. to cause reaction is practically negligible, and its immunising efficiency is very high.

In collaboration with my Assistant, Dr. Walter Birchall, now Medical Officer of Health, Tarvin and West Cheshire Rural District Council, I have used every variety of diphtheria prophylactic, and discarded all except T.A.F. owing, in the case of T.A.M., to the need of preliminary testing and complete supervision, which is difficult, and as I do not consider its immunising efficiency as high as that of T.A.F.

As regards F.T., though the immunising efficiency is high, and the liability to reactions is low, if proper precautions have been taken, and though the production of immunity is rapid, I found that in all except children, a preliminary Moloney test is necessary.

With respect to A.P.T., its immunising efficiency is very high, and few children under eight years of age show reaction, but Moloney negative subjects have a liability to reactions. I do not consider it wise to employ it in the case of a Moloney negative subject. It is also apt to produce a small painless undurated nodule at the site of injection which is prejudicial to the spread of immunisation when exhibited, as is frequently done, by fond parents to others who, seeing it, won't have their children immunised. My own conviction is such that at no age would I

employ A.P.T. without a preliminary Moloney test, and that to be effectual one needs after such to give an injection of 0.5 c.c. followed in one of two weeks by one of 1 c.c. to attain a satisfactory degree of immunisation. Prophylactic T.A.F., with its high immunising efficiency, and extremely low liability to cause reaction is, I feel, unsurpassed.

As regards scarlet fever prophylactic for active immunisation, I at first employed only a small dosage, which I found to be most disappointing in its immunising efficiency, as evidenced by Dick testing of numbers three months after immunisation. Moreover, reactions were common from my first embarking upon scarlet fever immunisation.

I have always employed injection into the fascia of the deltoid's insertion, and the method has been, and is, first to inject either diphtheria prophylactic, leaving the needle *in situ*, and then to inject the scarlet fever prophylactic, or the reverse.

A year and half before the Dicks published their advice that not the slightest particle of spirit should be in the syringe or needle, I had found that by boiling needles and syringe, and then laying on lint wrung out of spirit (methylated is used by me) till required for use, that reaction became of little account. I quite agree with the Dicks that unless the water employed for boiling is alkaline or amphoteric, it must be made so by the addition of bi-carbonate of soda.

Emboldened by the advice of Dr. O'Brien, which was confirmed by my extensive reading and observation of the work of American pioneers, who practised and preached that to be effectual for scarlet fever immunisation large dosage of prophylactic is necessary, and who now employ up to 200,000 skin test doses—some advocate even a larger dosage—I determined to cautiously push dosage, especially as I had attained diminished reaction. I finally reached a total dosage of 165,000 skin test dosage, or I might frankly state as good measure was always employed of 180,000. The degree of reaction occurring with such dosage given in four sessions was, I found, going to seriously diminish the numbers of children whose parents would consent to their immunisation. Dick testing three months later of large numbers after immunisation with that dosage showed me that I had reached the desired desideratum of immunity's production. Dosage was slowly reduced with continual subsequent Dick testing till reaction had become negligible, which I found occurred without lessening of the desideratum of immunity which I had attained. During my work, the publication of the higher dosage of prophylactic by Benson and Rankin confirmed my opinion.

With high dosage both as regards diphtheria prophylactic and scarlet fever prophylactic in numerous re-tests, I find almost

invariably the immunisation is lasting. This I attribute to the large dosage causing a large anti-toxin formation which becomes larger probably in response to numerous small infections, which must be many in the case of each one, and which though producing no subjective symptoms, cause a further addition of anti-toxin content to the blood.

In agreement with Professor Anderson, and other American observers, I feel quite sure that the high dosage of scarlet fever prophylactic gives quite as good a result, as the difference is only fractional, as is attained in diphtheria immunisation, and emphasise that it is a failure unless the dosage exceeds 100,000 skin test doses.

In the district of South West Lancashire, I recommend 115,000 skin test doses as sufficient for the types of scarlet fever therein, though in some other districts, I can quite believe dosage may require to be larger.

Though mentioned by me previously, in the rare case of severe reaction, I regard the reactor as the one who is extremely liable to contract the disease. Reducing the dosage, and extending the number of periods of attendance, and the giving in total a larger dosage is my practice in such a case.

The date of my penning this article is February 28th, when Merseyside, especially Liverpool, is struck by an extremely high incidence of diphtheria, and when Dr. Hodgson informs me he has only one ward of under 30 persons in the extremely large City Infectious Hospital at Fazakerley of Liverpool containing scarlet fever cases, so great is the pressure occasioned by cases of diphtheria upon their accommodation, and when expenditure upon anti-toxin is running from £100 to £150 weekly, as also that in the younger children, mortality is high. My contiguous Borough of Crosby, in all areas of which there is a high percentage of diphtheria immunisation, especially in the former Urban District Council of Waterloo-with-Seaforth portion of the Borough, stands out in marked contrast with its low amount of both diphtheria and scarlet fever.

A point of interest is to note that in mid-January, 1938, five cases occurred in one class-room of a school in the district, at a short interval, of five cases of diphtheria. The remaining 153 children in the classroom had their throats swabbed. Amongst these, Professor Wright, of the Liverpool City Laboratory, found nine carriers, of whom six were of the Gravis type and virulent. Two of the nine carriers had been immunised. Seventy per cent. of the children in the school had been immunised. All these carriers were referred to their own doctor, and each one was removed to hospital. It is now six weeks later, and no further case has occurred amongst the children of the classroom.

SECTION 5

INSPECTION AND SUPERVISION OF FOOD.

ADULTERATION, ETC.—The Corporation is not the authority for the administration of the Food and Drugs Adulteration Act. They are administered by the County Police. From the information kindly supplied by the Superintendent of Police, it was found that the following samples had been taken and examined under the above Act:—

Description of Samples.						No. Purchased.
Milk ...	...	...	...	...	...	138
Ground Rice	...	...	...	...	...	1
Sausage	...	...	...	...	...	1
Marmalade	...	...	...	...	...	1
Cheese	...	...	...	...	...	4
Cornflour	...	...	...	...	...	1
Chocolate	...	...	...	...	...	1
Margarine	...	...	...	...	...	2
Coffee	...	...	...	...	...	6
Sugar	...	...	...	...	...	5
Meat Paste	...	...	...	...	...	2
Tapioca	...	...	...	...	...	1
Gravy Browning	...	...	...	...	...	1
Oatmeal	...	...	...	...	...	2
Meat Pies	...	...	...	...	...	1
Borax	...	...	...	...	...	1
Lard ...	...	...	...	...	...	6
Flour	...	...	...	...	...	2
Butter	...	...	...	...	...	5
Jam	...	...	...	...	...	4
Rice ...	...	...	...	...	...	2
Cocoa	...	...	...	...	...	3
Arrowroot	...	...	...	...	...	1
Tea ...	...	...	...	...	...	3
Pepper	...	...	...	...	...	2
Flour (Self Raising)	...	...	...	...	...	1
Soup Powder	...	...	...	...	...	2
Lemonade Powder	...	...	...	...	...	1
Cinnamon	...	...	...	...	...	1
Baking Powder	...	...	...	...	...	2
Fish Cakes	...	...	...	...	...	1
Ground Ginger	...	...	...	...	...	1

Proceedings were instituted in regard to one sample of milk, the vendor being convicted.

Bakehouses.

The bakehouses have been inspected and found to be in a sanitary condition, 160 visits having been made.

In 30 instances the cleansing of walls and ceilings of rooms had not been done and eight nuisances were found at bakehouse premises. Notices of occupation were received from H.M. Inspector of Factories.

Milk Supply.

The number of Cowkeepers on the register at the end of the year was 30 and the approximate number of cows kept for dairy purposes is 592. The general standard of construction of cowsheds is good. The floor of one cowshed accommodating 14 cows was taken up and satisfactorily relaid with concrete.

The standard of cleanliness observed both in the methods of milking and state of cowsheds has improved. In a few instances it was found that insufficient use was made of the means of ventilation provided.

The number of dairies and milkshops other than premises registered as cowsheds is 33, and 394 visits of inspection were made to the cowsheds, dairies and milkshops during the year.

Sixty-five samples of milk were taken and submitted for bacteriological examination. Five were reported to be infected with Tubercle Bacilli. The herds from which the infected milks were drawn were reported to the County, and the infected animals removed and slaughtered.

CLEANLINESS OF MILK SUPPLY.—Of the 65 samples of ungraded milk examined for Coli-Bacilli, 39 were of a high standard of cleanliness.

In 20 samples Coli-Bacilli was absent in 1	c.c.
„ 6 „ „ „	.1 c.c.
„ 13 „ „ „	.01 c.c.
„ 26 „ „ was present in	.01 c.c.

This means :

39 reached the Accredited Milk Standard.

THE MILK (SPECIAL DESIGNATION) ORDER, 1936.—Six Cowkeepers were granted licences by the County to produce accredited milk. Six dealers' licences were issued by the Corporation for the distribution of "Tuberculin Tested" Milk and one accredited milk.

No licences were issued in respect of pasteurised milk.

MEAT SHOPS.

A notable change in recent years has been the gradual replacement of the old fashioned open shop front by the modern closed front. There are now only 5 shops with open fronts remaining, and these are kept closed during windy and dusty weather.

Another noticeable feature is the general improvement of the shop premises throughout the district—impervious floors, tiled walls, ample ventilation, and modern methods of refrigeration being a common feature in all new shops, and in this respect many of the small butchers are now following the example set by the multiple shops, with the result that a very high standard is steadily being attained.

During the course of visits, a few minor infringements of the Meat Regulations were discovered and the persons responsible were warned. The following sanitary improvements were also affected:—

Premises linewashed	...	...	...	13
Dirty floors cleansed	...	...	...	1
Yard paving made good	...	...	...	2
W.C.s repaired	...	...	...	2

Meat and Other Foods.

There are no slaughterhouses in the Borough. The inspection of meat is mainly confined to butchers' shops of which there are 74. 321 visits of inspection were made to butchers' shops and other food premises, where food is either prepared or stored.

The following articles of food were voluntarily surrendered and destroyed:—

- 40 tins Peaches.
- 40 lbs. Timed Pressed Beef.
- 70 lbs. Beef and Mutton.
- 28 lbs. Finnan Haddie.
- 1½ lbs. Liver.

SECTION 6

Prevalence of, and Control over Infectious Diseases.

INFECTIOUS DISEASE NOTIFIED.—598 cases of Infectious Disease have been notified and 162 of these were removed to Hospital. The number of cases notified last year was 608.

273 first visits and 162 re-visits have been paid to houses where infectious disease occurred. Enquiries were made into each case. 450 intimations were sent to Head Teachers regarding school children from houses where there was infectious disease, and in every case milk dealers were notified.

677 rooms at dwelling-houses were disinfected and cleansed, paper being scraped from off the walls wherever necessary.

Disinfecting fluid has been given to the ratepayers when infectious disease occurred in their homes.

The disinfecting apparatus was used 328 times. 6,954 articles of bedding, etc., being disinfected, and 82 articles were destroyed at the request of the owners. 532 library books were disinfected.

Table of Notifiable Diseases.

Number of cases of infectious disease *notified* other than tuberculosis, the number of deaths from these diseases, the number of cases removed to hospital, and the deaths in hospital during the year. 1937.

Disease	Total Cases Notified												Total Deaths	Hospital		
	Total Cases at all Ages	Under 1	Years													
			1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65		65 and over		
Scarlet Fever ...	83	1	5	3	2	8	30	15	10	6	3	—	—	57	—	
Diphtheria (including Membranous Group)	87	2	3	5	6	5	32	14	4	13	2	1	—	76	5	
Acute P. Pneumonia	63	5	4	3	3	3	5	2	4	9	2	15	8	—	29	
Acute Influenzal Pneu.																
Puerperal Pyrexia	1	—	—	—	—	—	—	—	—	—	1	—	—	—	1	
Enteric Fever (including Paratyphoid)	7	—	—	—	—	—	2	—	1	2	1	1	—	4	—	
Ophthalmia Neonatorum	4	4	—	—	—	—	—	—	—	—	—	—	—	2	—	
Erysipelas	20	—	—	—	—	—	1	1	—	2	3	12	1	9	—	
Measles (excluding German Measles)	278	17	40	27	34	45	87	21	1	6	—	—	—	12	—	
German Measles	14	1	1	—	1	—	4	5	2	—	—	—	—	—	—	
Infantile Diarrhoea	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Relapsing Fever	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	
Meningococcal Meng'tis	1	—	1	—	—	—	—	—	—	—	—	—	—	1	—	
Trachoma	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	
† Whooping Cough	87	—	3	8	4	7	14	1	—	—	—	—	—	—	1	
TOTALS	598	31	57	46	50	68	175	60	22	39	12	29	9	48	162	36

† Cases notified in Gt. Crosby U.D.C. area.

SECTION 7

TUBERCULOSIS.

Under the Public Health (Tuberculosis) Regulations, 1930, 85 cases were notified to be suffering from this disease. There were 41 deaths during the year, and out of these there was one non-notified case.

The following brief report of Sanatorium benefit, etc., under the Lancashire County Council to residents in the Borough of Crosby has been supplied by Dr. Laird—

INITIAL EXAMINATIONS.

Waterloo	...	...	...	...	84
Seaforth	...	...	...	...	48
Crosby and Blundellsands	...	...	...	...	57
					<hr/> 189 <hr/>

RE-EXAMINATIONS.

Waterloo	...	...	...	...	206
Seaforth	...	...	...	...	207
Crosby and Blundellsands	...	...	...	...	174
					<hr/> 587 <hr/>

Bacteriological examinations were made of 289 specimens of sputum, of which 73 were positive and 216 negative. 298 X-ray photographs were taken, and 101 screen examinations made.

Apart from patients who were in institutions at the beginning of the year, 56 were admitted during 1937.

The Tuberculosis Health Visitor, in whose area your district is included, paid 795 visits to patients in their homes; and in addition to those seen at the Dispensary, as shewn above, others were seen at their homes by myself or my assistants when they were unable to attend the Dispensary.

Eleven patients received artificial pneumothorax treatment at the Dispensary during the year, the refills for these cases totalling 60. This form of treatment is carried out under X-ray control.

Artificial Light treatment is afforded at St. Helens Dispensary to suitable cases.

Nursing requisites were issued on loan to seven patients, the number of articles so loaned being 17. In addition, paper handkerchiefs, pocket flasks and sputum cups were distributed for the hygienic disposal of sputum.

Close co-operation continues to be maintained between the local Health Department and the Dispensary organisation in all matters relating to tuberculous patients, and local practitioners readily avail themselves of the services of the Dispensary staff.

New Cases and Mortality during 1937.

Age Periods	NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M	F.	M.	F.	M.	F.	M.	F.
Years								
0—1 ...	—	—	1	—	—	—	—	—
1—5 ...	—	1	1	2	1	—	1	1
5—10...	1	—	—	3	—	—	—	1
10—15...	1	2	1	—	—	—	—	—
15—20...	1	3	—	—	1	1	1	1
20—25...	3	2	—	1	1	—	—	—
25—35...	12	8	2	3	8	6	—	—
35—45...	14	6	—	2	4	2	—	—
45—55 ..	8	1	—	1	5	—	—	—
55—65...	2	—	1	—	4	—	1	—
65 and upwards	1	—	—	1	1	1	—	—
TOTALS ...	43	23	6	13	25	10	3	3
	66		19		35		6	

SECTION 8

SHOPS ACTS, 1912-1936.

761 Visits of inspection were made to shops for the purpose of ascertaining whether assistants' hours of employment were being recorded, to check records kept, and to ensure that suitable arrangements were provided for the health and comfort of shop assistants.

Four offences were reported to the Health Committee for serving customers after hours, and in each case a letter of warning was sent.

The following improvements to shops were effected:—

Provision of suitable ventilation ...	...	...	5
„ reasonable temperature ...	...	...	10
„ sufficient sanitary conveniences ...	...	...	5
„ sufficient washing facilities ...	...	...	4

SECTION 9

FACTORY AND WORKSHOP ACT, 1901.

The factories, workshops, workplaces and laundries in the district have been inspected, 82 visits having been made.

The walls and ceilings of six workrooms required limewashing or cleansing and on intimation the work was carried out.

New closet and washing accommodation was provided at a factory in Seaforth, and nine nuisances were discovered at workshops, which included the cleansing and repair of sanitary conveniences. Six notices were received from H.M. Inspector of Factories, relative to occupation and to insanitary conditions at workshop premises.

Home Work.

Two lists of outworkers residing in the district have been received, the home was visited and found to be in a satisfactory state. Both lists referred to the same person.

Factories, Workshops and Workplaces.

1—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors.

Premises (1)	Number of		
	Inspections (2)	Written Notices (3)	Occupiers prosecuted (4)
Factories (Including Factory Laundries) ...	172	6	
Workshops (Including Workshop Laundries) ...	57	5	
Workplaces (Other than Outworkers' premises)...	2	—	
Total	231	11	

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

Particulars (1)	Number of Defects		
	Found (2)	Remedied (3)	Referred to H.M. Inspector (4)
Nuisances under the Public Health Acts:—*			
Want of cleanliness	6	6	—
Want of ventilation	—	—	—
Overcrowding	—	—	—
Want of drainage of floors	2	2	—
Other nuisances	12	12	—
Sanitary accommodation—			
Insufficient	—	—	—
Unsuitable or defective	1	1	—
Not separate for sexes	—	—	—
Offences under the Factory and Workshop Acts:—			
Illegal occupation of underground bakehouse (s. 101)	—	—	—
Other offences	—	—	1
(Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921)			
Total	21	21	1

*Including those specified in Sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

SECTION 10

HOUSING AND ENVIRONMENTAL HYGIENE.**Number of New Houses Erected During the Year.**

(a) Total, including number given separately under (b) ...	273
(1) By the Local Authority	14
(2) By other Local Authorities... ..	nil.
(3) By other bodies and persons	259
(b) With State assistance under the Housing Acts:—	
(1) By the Local Authority	14
(2) By other bodies or persons	nil.

Inspection of the District.

During the year, 7,221 inspections were made of properties in the district.

The smoke test has been applied 165 times to house drains and many defects were discovered which would not have been found out by superficial examination. All new drains are tested by means of the smoke test and carried out by the Building Inspector.

Notices, etc., Served.

1,234 preliminary notices with respect to various nuisances found in the course of inspection were served upon the owners or occupiers, most of which received prompt attention. In 200 instances nuisances were reported to the Health Committee, and statutory notices ordered to be served.

It was found necessary to issue 173 statutory notices. In 24 instances the Council did the work in default and charged the owners with the cost. The various premises were visited during the progress of the work with the object of seeing that the notices were complied with, the number of such re-inspections being 6,338. On several occasions during the year I had to report default of compliance to abate nuisances to the Solicitor, and by his action Police Court proceedings were avoided.

INSPECTION OF DWELLING-HOUSES DURING THE YEAR:—

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	3,115
(b) Number of inspections made for the purpose...	7,221

(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	287
(b) Number of inspections made for the purpose	306
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation...	5
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	2,799

REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers...	2,511
--	-------

ACTION UNDER STATUTORY POWERS.

A.—Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936:—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs...	36
(2) Number of dwelling-houses which were rendered fit after service of formal notice:—	
(a) By owners	38
(b) By Local Authority in default of owners	Nil

B.—Proceedings under Public Health Acts:—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	173
(2) Number of dwelling-houses in which defects were remedied after service of formal notices:	
(a) By owners	172
(b) By Local Authority in default of owners	24

C.—Proceedings under Sections 11 and 13 of the Housing Act, 1936:—

(1) Number of dwelling-houses in respect of which Demolition Orders were made...	3
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	Nil

D.—Proceedings under Section 12 of the Housing Act, 1936 :—

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	...	...	...	...	...	Nil
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	...	...	...	...	...	Nil

HOUSING ACT, 1936—PART IV.—OVERCROWDING.

A.—(1) Number of dwellings overcrowded at the end of the year	...	...	...	...	...	171
(2) Number of families dwelling therein...	...					176
B.—Number of new cases of overcrowding reported during the year	...	...	...	...	...	6
C.—(1) Number of cases of overcrowding relieved during the year	...	...	...	...	...	91
(2) Number of persons concerned in such cases...						560

Legal Proceedings and Results.

It was found necessary to institute legal proceedings as follows :—

Date	Nature of complaint	Act or Order under which proceedings were instituted	Result.
March	Insufficient ashpit accommodation.	Section 36. P.H.A., 1875.	Council executed work in default in three cases.
May	Insufficient ashpit accommodation.	Section 36. P.H.A., 1875.	Council executed work in default in three cases.
June	Insufficient ashpit accommodation.	Section 94. P.H.A., 1875.	Council executed work in default in three cases.
July	Improper keeping of swine.	Section 91. P.H.A., 1875.	Order made for removal of Pigs. Pigsties to be removed within 3 months.
	Insufficient ashpit accommodation.	Section 36. P.H.A., 1875.	Council executed work in default in two cases.
August	Insufficient ashpit accommodation.	Section 36. P.H.A., 1875.	Council executed work in default in three cases.
September... ..	Insufficient ashpit accommodation.	P.H.A., 1875 Section 36.	Council executed work in ten cases.

Houses Let in Lodgings.

There were 13 houses let in lodgings on the register at the end of the year. 23 visits of inspection were made and found to be generally well kept. In fifteen instances certain defects were found, and after Informal Notice were duly carried out.

Offensive Trades.

There are only two offensive trades other than Fish Friers. There is a Fat Melter and a Rag Dealer.

There are, however, 31 fish friers in the Borough. 168 visits of inspection were made, and on the whole the businesses are well-conducted. Two written notices were served for the cleaning of walls and ceiling, and complied with.

House Refuse.

For the removal of household refuse the Pagefield System is in operation, except in Hightown and Little Crosby area; the removal of refuse in Hightown is by means of a covered motor vehicle. In Little Crosby Village where the closet and refuse accommodation is mainly of the privy midden type, the middens are emptied by the Corporation workmen, and local farmers remove the refuse on to the land for manure.

Ashbins and pail closets are emptied weekly, and privy middens at intervals of approximately two months.

Shop refuse is removed twice weekly and in certain cases three times.

The Corporation dispose of the refuse on to tips, controlled tipping being carried out.

6,534 loads of ashbin and shop refuse (Pagefield containers).

1,392 loads of shop refuse (Morris and Commer Motors).

Streams and Watercourses.

The watercourses and ditches are cleansed and bottomed by their respective owners, and receive frequent inspection. Rimrose Brook, which is situated on the Eastern boundary, is polluted mainly from sources outside this district. At two points where the pollution enters, samples of the water were taken and submitted for chemical analysis. The Analyst stated in his report that the effluents were unfit to be discharged into any stream. The matter is at present being taken up with the authorities concerned.

Smoke Abatement.

There are five factory chimneys in the district which send out any volume of smoke. It may be said that the emission of a more than appreciable amount of smoke is entirely preventable and arises from defective construction of boilers, careless firing, and the use of unsuitable fuel.

Thirteen observations of factory chimneys were made, and in one instance a nuisance was recorded, and as the owner had previously been warned, a Statutory Notice was served. Further observations were taken of this particular chimney, and the emission of smoke was practically nil, the owners having changed their fuel from coal to coke.

Bye-laws have not been made under the Public Health (Smoke Abatement) Act, 1926, or the Public Health Act, 1936.

Verminous Infestation.

A few complaints of verminous premises were reported. The method adopted for freeing the infested houses consists of the removal of bedding and clothing to the steam disinfecting station and the spraying of the rooms with Cromessol Solution B, or Flypic. There were no Council houses reported to be infested during the year.

Rats and Mice Destruction Act, 1919.

Complaints were received regarding rat infestation which entailed 242 visits. These complaints were mainly from lands and premises near the agricultural portion of the Borough. The chief causes of the trouble were due to occupiers themselves in putting out excessive amounts of scrap food for birds, particularly in gardens where there were rock gardens and inefficient rat-proof sheds.

The methods adopted for the destruction of these rodents are dogs and ferrets, traps, poisonous bait and rat varnish smeared on cardboard. Our experience is that the best results were obtained by means of dogs and ferrets.

The Corporation have an arrangement with an employee who has ferrets and dogs to act as Rat Catcher in his own time. 189 rats were caught by him during the year, and 46 rats were destroyed by traps which are loaned out free by the Department.

During Rat Week in November circulars, together with pamphlets giving simple suggestions for the destruction of these pests, were sent out to farmers, pig and poultry keepers and others whose premises were likely to harbour rats and mice, requesting that a special effort be made during this particular week, with the result that 141 rats were caught and destroyed.

Public Elementary Schools.

The annual application of the smoke test to the drains of the public elementary schools was carried out, and an examination was made of all sanitary fittings, &c. All defects discovered were reported to the Education Department and were duly remedied. During the principle holidays, the drains of all the schools were flushed by the Corporation's staff.

Summary of Work of Department.

Number of houses inspected	...	...	...	...	...	...	7221
Number of re-inspections	...	...	...	...	...	...	6338
Number of visits to workshops, factories and outworkers	...	...	...	...	...	...	110
Number of visits to bakehouses	...	...	...	...	...	...	160
Number of visits to cowsheds, dairies and milk shops	...	...	...	...	...	...	357
Number of visits to petrol and carbide stores...	...	...	...	...	...	...	88
Number of visits to meat shops	...	...	...	...	...	...	321
Number of visits to ditches, etc.	...	...	...	...	...	...	85
Number of visits to piggeries	...	...	...	...	...	...	36
Number of visits to Fish Friers	...	...	...	...	...	...	168
Number of visits to offensive trades	...	...	...	...	...	...	2
Number of visits to schools	...	...	...	...	...	...	19
Number of visits to sub-let houses	..	...	...	...	...	...	23
Number of tuberculosis enquiries	...	...	...	...	...	...	50
Number of times smoke test applied to house drains	...	...	...	...	...	...	165
Number of preliminary notices served	...	...	...	...	...	...	1234
Number of statutory notices served	...	...	...	...	...	...	173
Samples of milk submitted for bacteriological examination	...	...	...	...	...	...	65
Cases of infectious disease reported upon	...	...	..	...	...	...	598
Number of houses fumigated	...	...	...	...	...	...	677
Visits to shops	...	...	...	...	...	...	761
Articles of bedding, clothing, &c., disinfected	...	...	...	...	...	...	6954
Number of intimations of infectious disease sent to schools...	...	...	...	...	...	...	450
Number of library books disinfected	...	...	...	...	...	...	532
Number of smoke observations	...	...	...	...	...	...	13

**Details of Sanitary Improvements effected
during the year.****DRAINS.**

Drains choked—opened and cleansed	...	...	...	....	...	...	194
Defective drainage, reconstructed, relaid or repaired	...	...	...	...	...	...	34
Intercepting traps fixed	...	...	...	...	...	...	—
Inlet ventilation provided to drains	...	...	...	...	...	...	2
Gullies fixed in lieu of defective gullies or masons' traps	...	...	...	...	...	...	15
Gratings provided to existing gullies	...	...	...	...	...	...	43

WATER CLOSETS.

Choked closets opened and cleansed	...	...	...	..	...	...	28
Closet basins and traps substituted for defective ones	...	...	...	...	...	...	118
Closets supplied with a sufficient supply of water	...	...	...	...	...	...	25
Defective connection of flush pipes to closets made good	...	...	...	...	...	...	10
Defective closet cisterns repaired or replaced...	...	...	...	...	...	...	56

Defective closet walls, roofs, floors, &c., made good	...	...	...	87
Closet apartments lime washed	...	...	...	2
Foul closets and urinals cleansed	...	...	...	2
Defective flush pipes made good	...	...	...	10
Insanitary closet fixtures	...	...	...	4

SOIL PIPES.

Joints of soil pipes made gas tight	...	...	...	11
Defective drains from soil or ventilating pipes made good	...	...	...	8
Soil and ventilating pipes made good	...	...	...	27
Ventilating pipes choked—obstruction removed	...	...	...	6
Defective connections of closet traps and soil pipes made good	...	...	...	33

WASTE PIPES.

Defective waste pipes trapped or made good	...	...	...	83
Choked waste pipes cleared	...	...	...	3
New salt-glazed stoneware sinks fixed	...	...	...	27
New washbasins fixed	...	...	...	2

WATER SUPPLY.

Premises supplied with water for domestic use	...	...	...	34
Defective water pipes and taps repaired	...	...	...	66
Water storage cisterns covered and cleansed	...	...	...	5
References, re waste of water	...	...	...	200
Defective cylinders	...	...	...	5

FILTHY AND DILAPIDATED PREMISES.

Foul houses, walls, &c., stripped and cleansed...	...	...	...	16
Filthy house floors cleansed	...	...	...	20
Defective plastering and ceilings made good	...	...	...	109
Defective roofs made water tight	...	...	...	158
Defective rain water pipes and eaves gutters made good	...	...	...	146
Choked rain water pipes and eaves spouting cleared	...	...	...	21
Defective house walls re-pointed..	...	...	...	161
Defective house floors repaired	...	...	...	147
Defective window-sashes re-hung and repaired	...	...	...	97
Defective pointing to window frames	...	...	...	62
Defective fireplaces, flues and chimney stacks	...	...	...	116
Defective back yard walls made good	...	...	...	81
Defective doors, frames and stairs	...	...	...	126

MISCELLANEOUS.

Premises provided with ashbin accommodation	...	...	...	...	7
Defective ashbins replaced or made good	...	...	...	...	478
Surfaces of yards repaired or repaved	...	...	...	...	163
Nuisances from improper keeping of animals abated...	...	...	...	...	—
Accumulations of offensive matter removed	...	...	...	...	22
Miscellaneous nuisances abated	...	...	...	...	18
Defective washing boilers and brickwork	...	...	...	...	30
Defective sculleries and washhouses	...	...	...	...	8

Ante-natal and Post-natal Clinic	...	...	...	...	...	17
Artificial Sunlight...	...	...	...	...	...	17, 18
Aural Clinic	...	...	...	...	...	18
Orthopædic Clinic...	...	...	...	...	...	19
Child Life Protection	...	...	...	...	...	19
Ophthalmia Neonatorum	...	...	...	...	...	19
Section IV.—Immunisation	...	...	...	...	...	20-26
Section V.—Inspection and Supervision of Food.						
Samples taken	...	...	...	...	...	27
Proceedings taken...	...	...	...	...	...	27
Milk Supply	...	...	...	...	...	28
Bakehouses	...	...	...	...	...	28
Meat and other Foods	...	...	...	...	...	29
Section VI.—Infectious Diseases.						
Cases notified	...	...	...	...	...	30, 31
Visits paid to houses where infectious disease occurred...	...	...	...	...	...	30
Disinfection	...	...	...	...	...	30
Section VII.—Tuberculosis.						
Report on treatment, etc.	...	...	...	...	...	32
New cases	...	...	...	...	...	33
Mortality	...	...	...	...	...	33
Section VIII.—Shops Acts, 1912-1936.						
Visits to shops	...	...	...	...	...	34
Offences reported	...	...	...	...	...	34
Section IX.—Factory and Workshops Act, 1901.						
Table of Inspections and Defects	...	...	...	...	...	35, 36
Home Work	...	...	...	...	...	35
Section X.—Housing and Environmental Hygiene.						
New houses	...	...	...	...	...	37
Inspection of District	...	...	...	...	...	37, 38
Action under Statutory Powers...	...	...	...	...	...	38, 39
Overcrowding	...	...	...	...	...	39

Legal Proceedings and Results	40
Houses Let in Lodgings	40
Offensive Trades	40
House Refuse	41
Streams and Watercourses	41
Smoke abatement	41
Verminous infestation	42
Rats and Mice Destruction Act, 1919	42
Elementary Schools	42
Summary of Work of Department	43
Details of Sanitary Improvements effected during the year	43

